

In the Claims

Claims 1-24 (Canceled).

25. (Currently amended) A high-purity cobalt material comprising a total content of non-cobalt metallic elements of less than 50 ppm, the non-cobalt metallic elements including less than 0.05 ppm Cr, and a detectable amount of at least one of Mn, P, Ti, Zn, Mg, Al, V, Cu, Zr, Nb, Mo, W and Pb.

26. (Original) The cobalt material of claim 25 in the shape of a sputtering target.

27. (Withdrawn) A cobalt film deposited from the sputtering target of claim 26.

28. (Original) The cobalt material of claim 25 comprising less than 0.01 ppm Cr.

29. (Previously presented) The cobalt material of claim 25 comprising less than 25 ppm total non-cobalt metallic elements.

30. (Previously presented) The cobalt material of claim 25 comprising less than 25 ppm total non-cobalt metallic elements, and less than 0.01 ppm Cr.

31. (Currently amended) A high-purity cobalt material comprising 99.99% cobalt, from greater than 0 ppm to less than 0.12 ppm Mn, and a sum total of Mg, Al, Ti, V, Cr, Mn, Fe, Ni, Cu, Zn, Zr, Nb, Mo, W and Pb of less than 50 ppm.

32. (Original) The cobalt material of claim 31 comprising less than 1 ppb of Th, and comprising less than 1 ppb of U.

33. (Original) The cobalt material of claim 31 in the shape of a sputtering target.

34. (Withdrawn) A cobalt film deposited from the sputtering target of claim 33.

35. (Original) The cobalt material of claim 31 wherein the sum total is less than 40 ppm.

36. (Original) The cobalt material of claim 31 wherein the sum total is less than 30 ppm.

37. (Original) The cobalt material of claim 31 wherein the sum total is less than 25 ppm.

38. (Currently amended) A cobalt material comprising greater than 99.9% cobalt and less than 0.5 ppm each of Na and K, from greater than 0 ppm to less than 5 ppm of Fe, from greater than 0 ppm to less than 3 ppm of Ni, from greater than 0 ppm to less than 1 ppm of Cr, from greater than 0 ppm to less than 1 ppm of Ti and less than 450 ppm of O.

39. (Original) The cobalt material of claim 38 comprising greater than 99.99% cobalt.

40. (Original) The cobalt material of claim 38 in the shape of a sputtering target.
41. (Withdrawn) A cobalt film deposited from the sputtering target of claim 40.
42. (Currently amended) A high-purity cobalt material comprising less than 50 ppm total metallic impurities, from greater than 0 ppm to less than 0.12 ppm Mn and from greater than 0 ppm to less than 3 ppm Ti.
43. (Original) The cobalt material of claim 42 in the shape of a sputtering target.
44. (Withdrawn) A cobalt film deposited from the sputtering target of claim 43.
45. (Original) The cobalt material of claim 42 comprising less than 0.5 ppm Ti.
46. (Original) The cobalt material of claim 42 comprising less than 0.04 ppm Ti.
47. (Original) The cobalt material of claim 42 comprising less than 0.01 ppm Cr.
48. (Original) The cobalt material of claim 42 comprising less than 0.01 ppm Cr, and comprising less than 1 ppm P.
49. (Original) The cobalt material of claim 42 comprising less than 0.5 ppm Ti, comprising less than 0.01 ppm Cr, and comprising less than 0.08 ppm P.

50. (Previously presented) The cobalt material of claim 42 comprising less than 450 ppm of O.

51. (Previously presented) The cobalt material of claim 42 comprising less than 100 ppm of O.

52. (Previously presented) The cobalt material of claim 42 comprising a cobalt purity of greater than 99.99%, excluding gases; and less than 450 ppm of O.

53. (Previously presented) The cobalt material of claim 42 comprising a cobalt purity of greater than 99.99%, excluding gases; and less than 100 ppm of O.

54. (Previously presented) The cobalt material of claim 42 comprising a cobalt purity of greater than 99.999%, excluding gases; and less than 100 ppm of O.

55. (Currently amended) A sputtering target comprising at least 99.99% cobalt and less than 0.5 ppm each of Na and K, from greater than 0 ppm to less than 5 ppm of Fe, from greater than 0 ppm to less than 3 ppm of Ni, from greater than 0 ppm to less than 1 ppm of Cr, from greater than 0 ppm to less than 1 ppm of Ti and less than 100 ppm of O.

56. (Previously presented) The sputtering target of claim 55 comprising a cobalt purity of greater than 99.999%, excluding gases.

57. (Previously presented) The sputtering target of claim 55 comprising a cobalt purity of 99.9995%, excluding gases.

58. (Currently amended) A sputtering target comprising at least 99.99% cobalt; less than 50 ppm total metallic impurities including a detectable amount of at least one of Mn, P, Ti, Zn, Mg, Al, V, Cu, Zr, Nb, Mo, W and Pb; less than 60 ppm of O, and less than 5 ppm of C.

59. (Previously presented) The sputtering target of claim 58 comprising a cobalt purity of at least 99.999%, excluding gases.

60. (Previously presented) The sputtering target of claim 58 comprising a cobalt purity of 99.9995%, excluding gases.

61. (Previously presented) The sputtering target of claim 58 wherein the less than 60 ppm of O is less than 20 ppm of O.

62. (Withdrawn) A cobalt film deposited from the sputtering target of claim 58.

Claims 63-64 (Cancelled)

65. (Previously presented) The cobalt material of claim 58 comprising less than 25 ppm total metallic impurities.

66. (Currently amended) A high-purity cobalt material comprising Zn at a concentration of from greater than 0 ppm to less than 0.2 ppm and less than 25 ppm total metallic impurities.

67. (Previously presented) The cobalt material of claim 66 comprising less than 450 ppm of O.

68. (Previously presented) The cobalt material of claim 66 comprising less than 100 ppm of O.

69. (Previously presented) The cobalt material of claim 66 in the shape of a sputtering target.